

REMARKS

In response to the non-Final Office action of April 15, 2010, please enter the amendments set for above and consider the following remarks. By this response, Applicants amend claims 1-3, 5-9, and 11-12. No new matter has been added.

In the Office Action, the Examiner rejected claims 1-12 under 35 U.S.C. 101 as directed to non-statutory subject matter; rejected claims 1-3, 6, 7-9, and 12 as unpatentable over the published article "Electronics Letters 31st August, 1995, pp. 1542-1543 (Feng) in view of the published article "Optical Engineering 37(5), pp. 1563-1570 (Fan), and rejected claims 4-5 and 10-11 as unpatentable over Feng in view of Fan in further view of U.S. Patent 5,355,221 (Cohen). Reconsideration is respectfully requested.

Rejections Under 35 U.S.C. 101

The Examiner rejected claims 1-12 as directed to non-statutory subject matter. Applicants respectfully traverse. In the interest of efficiently furthering prosecution, Applicants have amended claim 1 to recite image processing modules and claim 7 to recite microprocessors. Support for these amendments is found in at least page 7 of the present Application. As such, Applicants respectfully submit that claims 1 and 7, as well as claims 2-6 and 8-12 dependent thereon recite patentable subject matter, and the rejection under 35 U.S.C. 101 should be withdrawn.

Rejections Under 35 U.S.C. 103

The Examiner rejected claims 1-3, 6, 7-9, and 12 as unpatentable over Feng in view of Fan.

Claim 1 recites "measuring local motion complexity for each segment". On page 3 of the present Office action, the Examiner indicates that a measurement of local motion complexity is shown by Feng... specifically by equation 1 of Feng.

Feng operates using a block matching algorithm that attempts to find a block in a second frame within a spatial search area of a block in a first frame, where the values in the first and second frames match. Feng does this by measuring the displaced block difference (DBD) for multiple frames, and selecting the frame with the lowest DBD. DBD, as described by Feng, is the average difference in pixel values for first and second blocks in a frame, where the first and second blocks are in different (non-corresponding) positions within the frame. Thus, Feng is not measuring local motion complexity for a segment of a frame, but is instead searching for matching values in different parts of two frames.

This distinction can be further clarified by section (ii) of Feng, which states that $(2w+1)^2$ locations must be searched for each block. This means that for each frame, DBD must be calculated $(2w+1)^2$ times without optimization. By way of contrast, claim 2 recites “determining a sum-of-absolute differences between pixel blocks of the picture frame and corresponding pixel blocks of an adjacent frame; and summing the measured sum-of-absolute differences associated with of pixel blocks within each segment”. By claim 2, each pixel block has an absolute difference with one other block, and those absolute differences are added together to calculate local motion complexity. This is completely different than any recitation of Feng, that is simply looking for a distance measure of a matching block in a different frame location.

Additionally, Fan does not cure the deficiencies of Feng. Fan discloses a motion estimation algorithm for image sequence coding using a segmentation analysis. Fan does not measure local motion complexity for each of a plurality of segments, and does not teach or suggest determining a sum-of-absolute differences between pixel blocks of the picture frame and corresponding pixel blocks of an adjacent frame; and summing the measured sum-of-absolute differences associated with of pixel blocks within each segment.

Therefore, Applicants respectfully submit that claims 1 and 2 are not obvious given a combination of Feng and Fan. Additionally, claims 7-8 include recitations similar to those of claims 1 and 2, and claims 3, 6, 9, and 12 depend from claims 1-2 and 7-8. As such, Applicants respectfully submit that the above claims are not obvious given a combination of Feng and Fan.

The Examiner rejected 4-5 and 10-11 as unpatentable over Feng in view of Fan in further view of Cohen. As described above, independent claims 1 and 7 are not obvious given a combination of Feng and Fan. Cohen does not cure the deficiencies of Feng and Fan.

Cohen describes moving the object along a z axis so that a highest point of the rough surface is optically aligned with and outside of the focus range of a solid-state imaging array, and creating an interferogram of the rough surface. Cohen does not measure local motion complexity for each of a plurality of segments, and does not teach or suggest determining a sum-of-absolute differences between pixel blocks of the picture frame and corresponding pixel blocks of an adjacent frame; and summing the measured sum-of-absolute differences associated with of pixel blocks within each segment.

Therefore, Applicants respectfully submit that claims 1 and 7, as well as claims 2-6 and 8-12 dependent thereon are not obvious given a combination of Feng, Fan, and Cohen.

Conclusory Remarks

In view of the above, it is respectfully submitted that claims 1-12 as amended are in condition for formal allowance, and early action to that effect is requested.

The Examiner is encouraged to call Applicants' attorney at the number below if doing so will in any way advance prosecution of this application.

The Commissioner is hereby authorized to charge any fees which may be required, or credit in the overpayment, to Deposit Account No. **07-1896** referencing Attorney Docket No. **348162-982870**.

Respectfully submitted,

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